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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,603	01/24/2002	Stephen J. Kovacic	115-10 US	5307
25319	7590	04/11/2005	EXAMINER	
FREEDMAN & ASSOCIATES 117 CENTREPOINTE DRIVE SUITE 350 NEPEAN, ONTARIO, K2G 5X3 CANADA			YENKE, BRIAN P	
		ART UNIT	PAPER NUMBER	
		2614		
DATE MAILED: 04/11/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/053,603	KOVACIC ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	BRIAN P. YENKE	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on Election (15 Nov 04).  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-26 and 29-32 is/are pending in the application.  
 4a) Of the above claim(s) 27 and 28 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-2,5-6,7-8,13-16,18-21,23 and 26 is/are rejected.  
 7) Claim(s) 3,4,9-12,17,22,24 and 25 is/are objected to.  
 8) Claim(s) 29-32 are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

1. Claims 29-32 were not examined, and should have previously been restricted since these claims do not contain any reference to the integrated circuit of such components as reflected in claims 1-26. In the event the applicant disagrees, the examiner requests the applicant to explain/identify, how claims 29-32 are patentable similar to claims 1-26.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-8, 13-16, 18-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA.

In considering claims 1-2 and 5-6, 8, 13-14, 18-21, 23

a) *the claimed a frequency conversion circuit...* is met by AAPA (Fig 1), mixers 11 and 12.

b) *the claimed a signal converter circuit...* is met by A/D ckt 25 (Fig 1).

However, AAPA does not disclose the frequency conversion circuit and the signal converter circuit being in a form of an integrated circuit.

Although, the implementation of multiple components/chips onto a single integrated circuit is notoriously well known the examiner nonetheless relies upon

Birleson et al., US 6,177,964 which discloses that it is preferred to construct all components of a tuner onto a single integrated substrate (col 4, line 36-37) which would advantageously utilize less space and the potential to dissipate less power.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA which discloses the use of two circuits/chips (10, 24) by combining the two circuits/chips onto one substrate which would provide the advantages as noted above.

In considering claim 7,

Is met by AAPA, which discloses the local oscillation frequency between 1.094 and 1.845 GHz.

In considering claims and 9-10 and 26

However, neither AAPA nor Birleson discloses the use of a CODEC (coder/decoder). A codec is a device which operates as a coder and decoder operating in different directions of transmission in the same equipment (i.e. a/d one direction d/a 2<sup>nd</sup> direction, or a coder/decoder). Thus a codec is an off the shelf A/D converter/coder in one direction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA and Birleson which discloses an integrated circuit tuner, by performing the A/D operation with a conventional readily available device such as an A/D converter or a CODEC.

In considering claims 15-16,

Is met by TV display and sound elements 27 (Fig 1).

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7352.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

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related information is available by contacting the USPTO's General Information Services Division at:

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(FAX) 703-305-7786

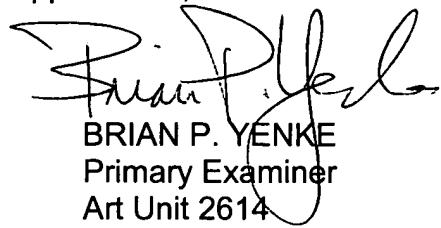
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BRIAN P. YENKE  
Primary Examiner  
Art Unit 2614

BPY  
07 April 2005